

Remarks

After careful consideration of the outstanding Office Action, this application has been amended accordingly, and favorable reconsideration on the merits thereof is herewith respectfully requested.

At page 5 paragraph 7 of the outstanding Office Action, the Examiner objected to claim 17 but stated the same “would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” Now cancelled claim 17 directly depended from claim 10 thereby excluding any “intervening” claims. The subject matter of claim 17 has been incorporated into independent claim 10 thereby rendering claim 10 allowable. In view of the foregoing, the formal allowance of claim 10 and each of the retained claims (claims 11 through 16 and 18) depending directly or indirectly therefrom is considered proper and is respectfully requested.

Apart from placing the original claims in condition for formal allowance, two independent claims have been added by this amendment, and each avoids the prior art patent to Beaty et al. (6,862,365 B1), whether considered under 35 U.S.C. § 102(e) or § 103(a).

Independent claim 19 is directed to the subject matter of original claim 10 and adds thereto “means for conveying the components (11) along a path of travel including at least first and second relatively spaced positions.” Basis for the latter subject matter is found in the original specification at paragraphs [0023] and [0025].

Paragraph [0023] refers to the supports 10 for the components being “arranged in a row along a continuous conveyor indexed according to the respective machine cycle,” whereas paragraph [0025] provides basis for the last limitation of

new claim 19 whereby “at two positions along the conveying path of the supporting device 10, the components 11, 11a being images at these positions by a video camera.” The last limitation of claim 19 recites “taking the first and second pictures of the components simultaneously at the first and second relatively spaced positions by the same video camera (40).” Thus, the last two limitations of claim 19 are supported by the original specification and comparable subject matter is not found in the patent to Beaty et al.

Throughout the Beaty et al. disclosure, one or more cameras take images at a **single** location, as is clearly evident beginning at column 5, line 28 of the specification. The more specific apparatuses of Figures 13 through 15 further evidence single position inspection. (See column 5, lines 1 through 3.) Inspecting at all times takes place at but a single position absent any reference to a conveyor mechanism or the simultaneous imaging of components at two different positions by the same camera. Accordingly, the subject matter of claim 19 finds no counterpart in the Beaty et al. patent. Therefore, the formal allowance of claim 19 is considered proper and would be most appreciated.

Dependent claims 20 through 24 depend directly or indirectly from claim 19. These dependent claims correspond to claims 11 through 14 and 16. In view of the clear failure of the prior art patent to Beaty et al. to anticipate or render obvious the subject matter of independent claim 19, the allowance of the claims depending therefrom is also considered proper and would be most appreciated.

Independent claim 25 is a combination of original claim 10 and dependent claims 14 and 16, the latter of which the Examiner rejected at page 4, paragraph 6 of the outstanding Office Action utilizing secondarily the patent to Campbell et al.

(6,418,872). The issue with respect to claim 25 is relatively straightforward, namely, the fact that “one illumination device (31) illuminates the component (11) directly at the same side where the picture (28) is taken, and the other illumination device (35) illuminates the component (11) with counter light.” The latter-quoted limitation fairly reflects the subject matter of the claim at issue, and remaining for consideration is “the scope and content of the prior art.” (See Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).)

At page 4, lines 6 through 14, the Examiner candidly admits that which is absent (“does not particularly disclose”) in the Beaty et al. disclosure. Quoted by the Examiner from the Campbell et al. patent, is the phrase “a suitable illumination source should efficiently and brightly emit all or most of its energy at the desired wavelength or wavelength ranges depending on the articles and defects being inspected. Alternatively, multiple illumination sources having different spectral emissions can be used to produce illumination having selected spectral bands for detecting and classifying particular articles and defects.” Interestingly enough, the Examiner has found from the latter-quoted Campbell et al. teaching the obviousness to one of ordinary skill in the art to use “lights with different wavelengths for illuminating the inspecting [sic] components. Doing so would help to provide better images.” The latter-quoted portion is presumably directed toward the subject matter of claim 14 because at the top of page 5, the Examiner specifically comments with respect to claim 16 by stating the following:

The combination of Beaty et al and Campbell et al would obviously result in a illumination device illuminates the component directly as the same side where the picture is

taken, and that the other illumination device illuminates the component with counter light as specified in claim 16, because it would provide better lighting to an object or side of an object to be pictured.

The undersigned has emphasized by underlining the last clause of the Examiner's comment with respect to claim 16 because there is absolutely no support therefor in either the Beaty et al. or Campbell et al. disclosures. The Examiner's quotation from the Campbell et al. patent is said to first teach "a suitable illumination source." Note that the latter is singular and the only variation thereof is specific wavelength or wavelength ranges depending upon the articles and the defects being inspected.

The next sentence quoted references "multiple illumination sources," but no orientation thereof with respect to the articles being inspected is mentioned. Instead the "multiple illumination sources" are utilized to provide "different spectral emissions" which produce "selected spectral bands." Quite evident from the entirety of the Campbell et al. quotation is that whether one or multiple illumination sources are utilized, they are utilized to illuminate only a specific article or a specific portion of an article or a specific defect of an article from only one side to provide that illumination required to efficiently and brightly provide the necessary wavelength or wavelengths to achieve defect inspection. Furthermore, there is no basis in the prior art that counter light would provide "better lighting." The only assumption one can make from the prior art is that a specific article or defect can be best inspected utilizing different wavelengths, wavelength ranges and/or different spectral emissions or bands, not "counter light." The Examiner's comment concerning "counter light"

finds no counterpart in the prior art and is gleaned strictly through hindsight from Applicant's disclosure. In view of the foregoing, the previous rejection of claims 14 and 16 is believed totally unwarranted and, therefore, the allowance of new independent claim 25 is considered to be in order and is herewith respectfully requested.

In view of the foregoing, the formal allowance of this application at an early date is respectfully requested.

Respectfully submitted,

DILLER, RAMIK & WIGHT

By:



Vincent L. Ramik, Reg. No. 20,663

7345 McWhorter Place
Suite 101
Annandale, VA 22003

(703) 642-5705 phone
(703) 642-2117 fax
drwpatentlaw@aol.com